

Appl. No. 10/736,280
Docket No.: H1823-00004
Reply to Final Office Action of September 21, 2005

REMARKS/ARGUMENTS

As a result of this Preliminary Amendment, claims 1-3, 5, 6, 16, 21, 22, 24, 25, 31, and 36-39 are under active consideration in the subject patent application. A Request for Continuing Examination (RCE) application has been filed in conjunction with this response to the Final Official Action mailed on September 21, 2005. **The Director is hereby authorized to charge the RCE fee required under 37 CFR 1.17(e), namely \$790.00, and any additional fees required to Deposit Account No. 04-1679.** In the Final Official Action mailed on September 21, 2005, the Examiner had:

- (1) rejected claims 1-6, 21-25, 31 and 36-42 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 3,686,926, issued to Miller et al. (the "Miller reference");
- (2) rejected claim 16 under 35 U.S.C. § 103(a) in view of a proposed combination of the Miller reference and Applicant's admitted prior art;
- (3) rejected claims 33-34 under 35 U.S.C. § 103(a) in view of the proposed combination of the Miller reference and U.S. Patent No. 4,242,789, issued to Fox; and
- (4) stated that Applicant's arguments filed on July 5, 2005, have been fully considered.

With regard to Items 1-4, the Examiner has continued to rely upon the Miller reference in support of the rejections of the claims. Applicant has amended independent claims 1, 16, 21, 24, and 36-39 so as to more distinctly

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define the present invention in view of the disclosure of Miller. Support for these changes to the claims may be found throughout the specification, drawings, and claims as originally filed. No new matter has been introduced into the Application as a result of these changes to the claims.

In response to Applicant's arguments that the Miller, *et al.* reference ("Miller") does not show (i) interlaced wires in an annealed structure having at least the goal of avoiding extrusions or the use of support structures, (ii) the weaving process only elastically deforming the conductors, and (iii) the structure having inherent macro-elastic properties, the Examining Attorney suggests that the Applicant is attempting to interpret the claims in light of the specification without explicit definitions being placed in the claims. This characterization of Applicant's claims and arguments is wholly incorrect since each of the claims originally presented included limitations defining these aspects of Applicant's invention. However, in an effort to further the prosecution of his application, Applicant has amended claim 1 so as to define an interlaced and annealed structure comprising at least three discrete wires manipulated into a unitary open-ended tubular structure having top and bottom conducting edges so as to be suitable for compressive engagement between, e.g., opposing contact pads. No such structure is even vaguely suggested by the debris sensor taught in the Miller reference.

Furthermore, claims 3, 5, 21, and 24 have been amended to further define structural limitations related to Applicant's goal of avoiding extrusions or the use of support structures. Applicant has also amended the claims to further define

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the weaving process as being one in which substantially only elastic strain is imparted to the discrete wires during weaving, which elastic strain is subsequently removed through annealing after weaving. Neither Miller, nor any of the prior art of record in the case, teaches or suggests in any way, the elastic manipulation of a plurality of wires into a woven structure followed by an annealing process. Instead, all of the prior art that even mentions an annealing step, teaches a variety of structures which begin with wires that have already been annealed. Finally, Applicant has amended claims 36-39 so as to further define the methodology of producing an electrical contact with the claimed macro-elastic properties.

Finally with regard to the Miller reference, the Examiner continues to rely upon the superficially similar woven or interlaced structure of Miller's debris sensor to support the erroneous conclusion that the structure of Applicant's electrical contact is taught by that reference. The Examiner's conclusion cannot withstand a close reading of Miller. At col. 5, lines 29-42, Miller teaches as follows:

"...In Fig. 2, a cylindrical detector 25 is shown wherein two continuous conductors are formed into spirals and woven with a plurality of non-conductors in plain weave manner. This particular detector offers structural strength and indicates the versatility of using weaving techniques . . . The conductors are designated 26 and are shown as continuous spirals inside the plurality of parallel non-conductors 27. The pair of conductors are woven with the non-conductors in plain weave as a filling pick over and under the non-conductors warp. .
."[emphasis added]

Contrary to the Examiner's allegations, Miller's conductors 26 are formed into spirals and then woven with a plurality of non-conductors so that the non-

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conductors 27 are arranged longitudinally, i.e., axially (see, at least Fig. 2). Miller never suggests weaving the wires themselves together. Instead, Miller teaches that his spirally arranged conductors 26 have non-conductors woven around them (col. 7, lines 54-67). In stark contrast, Applicant is claiming interlaced or woven wires, not wires formed into spirals that are then interlaced or woven with non-conductors. Miller simply does not weave any wires together at all.

Miller's structure cannot and does not include circumferential conducting edges that provide points of contact for edgewise electrical engagement, by axial compression, since the only edges or points of contact provided by Miller (during a hypothetical axial loading of his debris sensor) are formed by his non-conductors 27. It should also be noted that Miller does not teach or suggest such an axial loading of his debris sensor whatsoever. Miller's nonconductors 21, 31, 37, and 44 are likewise arranged so as to be longitudinally oriented, i.e., substantially parallel to the central axis of the spiral wires, thus providing for nonconductive points of contact at the ends of the sensor (see, at least Fig. 2). If, as suggested by the Examiner, Miller's device is contacted and compressed axially, so as to provide edgewise electrical engagement, only the nonconductors 21, 27, 31, 37, or 44 will make contact, such that no electrical pathway would ever be formed by Miller's debris sensor (See once again, Fig. 2 of Miller).

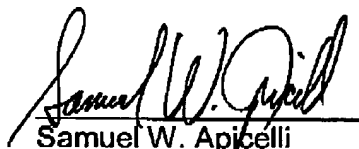
Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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If a telephone conference would be of assistance in advancing
prosecution of the above-identified application, Applicant's undersigned Attorney
invites the Examiner to telephone him at 215-979-1255.

Respectfully submitted,

Dated: 12/6/05



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